Michael Dourson [dourson@tera.org] From: 4/26/2021 11:51:16 AM Sent: To: Joseph Cotruvo (AoI) [joseph.cotruvo@verizon.net] CC: Gloria.Post@dep.nj.gov; akihikoh@dranihs.net; Janet Anderson [jkanderson@gsi-net.com]; Joseph Annotti [jannotti@truthinscience.org]; Behl, Betsy [Behl.Betsy@epa.gov]; Bertrand, Charlotte [Bertrand.Charlotte@epa.gov]; Sol Bobst [Sol@toxsciadvisors.com]; Boobis, Alan R [a.boobis@imperial.ac.uk]; Ex. 6 Personal Privacy (PP) ross.a.brittain@wv.gov; Edward Calabrese [edwardc@schoolph.umass.edu]; iill.clark@dnr.ga.gov; Harvey Clewell [hclewell@ramboll.com]; Cox, Kevin [kcox@nsf.org]; Davis, Kevin [kdavis2@idem.in.gov]; Deshpande, Satish (MECP) [Satish.Deshpande@ontario.ca]; beth.dittman@dhhs.nc.gov; Mike Easter [measter@ensight.net]; neeraja_erraguntla@americanchemistry.com; david.g.farrer@dhsoha.state.or.u Ex. 6 Personal Privacy (PP) ; Suzanne_Fitzpatrick [Suzanne.Fitzpatrick@fda.hhs.gov]; flagac@michigan.gov; Gillay, David [David.Gillay@btlaw.com]; gary.ginsberg@health.ny.gov; Dave Greco [greco@mimfg.org]; Hamade Ali K [ALI.K.HAMADE@dhsoha.state.or.us]; Joseph.Haney@tceq.texas.gov; TODD.HUDSON@dhsoha.state.or.us; Bernard Gadagbui [gadagbui@tera.org]; Jonathan Gledhill [jgledhill@policynavigation.com]; Þórhallur Ingi Halldórsson [tih@hi.is]; Holm, Stewart [Stewart_Holm@afandpa.org]; A. Wallace Haye Ex. 6 Personal Privacy (PP) helen.goeden@state.mn.us; Andrea Hinwood [andrea.hinwood@epa.vic.gov.au]; Michael Honeycutt [Michael.honeycutt@tceq.texas.gov]; Giffe Johnson [gjohnson@ncasi.org]; Mark S. Johnson Ex. 6 Personal Privacy (PP) ; Steve Koenigsberg [skoenigsberg@enrxinc.com]; Krapfl, Heidi, DOH [Heidi.Krapfl@state.nm.us]; sabine.lange@tceq.texas.gov; Kristin Licko [klicko@wqa.org]; liethen@mimfg.org; Jen Martin [Jen.Martin@epa.vic.gov.au]; Ratin Mathur [Ratin.Mathur@crccare.com]; mariko@nihs.go.jp; Ravi Naidu (CRCCARE) [Ravi.Naidu@crccare.com]; Orme-Zavaleta, Jennifer [Orme-Zavaleta.Jennifer@epa.gov]; Greg Paoli [gpaoli@risksciences.com]; Tiago Severo Peixe [tiago@uel.br]; amy.potter@dnr.ga.gov [Amy.Potter@dnr.ga.gov]; Brian Priestly [brian.priestly@monash.edu]; pruiz@cdc.gov; cer2 [cer2@cdc.gov]; riesd@michigan.gov; Risotto, Steve [Steve Risotto@americanchemistry.com]; Mikkonen, Antti Tapani - mikat001 [antti.mikkonen@mymail.unisa.edu.au]; Roe, Christopher M. [CRoe@foxrothschild.com]; Roberts, Stephen M [smroberts@ufl.edu]; rroy@mmm.com; Robert Scal Ex. 6 Personal Privacy (PP) chester rodriguez Ex. 6 Personal Privacy (PP) harma, Raj [Raj.Sharma@gapac.com]; Schlosser, Paul [Schlosser.Paul@epa.gov]; John Simon [jsimon@nathaninc.com] Ex. 6 Personal Privacy (PP) Rosalind A. Schoof [rschoof@ramboll.com]; Solchik, Elisabeth [ESolchik@idem.IN.gov]; Suggs, Shannon M. [ssuggs@nd.gov]; Thayer, Kris [thayer.kris@epa.gov]; Tucker, Brian [Brian.Tucker@epa.ohio.gov]; Dr.Nitin Verma [nitinmiet14@rediffmail.com]; svia@awwa.org; Ex. 6 Personal Privacy (PP) Walles, Todd K. [Todd.Walles@WestonSolutions.com]; Rick Welsh [rwelsh@astienv.com]; wildfange@michigan.gov; Tom Wilson [twilson@tegus.co]; Annette Dietz [acdietz@pdx.edu]; McAtee, Matthew J CIV USARMY MEDCOM APHC (USA) Ex. 6 Personal Privacy (PP); mgm4 [mgm4@cdc.gov]; rperona@neptuneinc.org; emmetted@mail.med.upenn.edu Subject: Re: PFOA 1/2 Life Project by Alliance for Risk Assessment Attachments: PastedGraphic-1.pdf

Dear Dr. Cotruvo

Thanks for your thoughts on this developing project. Please feel free to send additional information. We would also welcome your nomination of a colleague to this project's advisory committee (deadline is the end of April), and/or your group's endorsement or support.

On behalf of the ARA Steering Committee,

Sincerely,

Michael Dourson

Alliance Steering Committee

Annette Dietz, Portland State University
Michael Dourson, Toxicology Excellence for Risk Assessment
Michael Honeycutt, Texas Commission on Environmental Quality
Matthew McAtee, U.S. Army Public Health Center
Moiz Mumtaz, Agency for Toxic Substance & Disease Registry
Ralph Perona, Neptune & Company, Inc. [representing tribal interests]

—Alliance for Risk Assessment (ARA), building a risk assessment community

On Apr 23, 2021, at 5:00 PM, Joseph Cotruvo (Aol) < <u>joseph.cotruvo@verizon.net</u>> wrote:

At least it can probably provide a boundary range.

On 4/23/2021 4:17 PM, Post, Gloria (DEP) wrote:

All,

I am responding to the request for information relevant to the evaluation of the half-life of PFOA in Michael Dourson's email below.

The submitted manuscript linked from the email below includes conclusions about the contribution of non-drinking water exposures to blood serum PFOA levels based on interpretation of the Emmett et al. (2006) data on daily tap water consumption in a community with PFOA-contaminated drinking water. I would like to make you aware that these daily tap water consumption data are not intended to be used, and cannot be used, to make the conclusions about non-drinking water exposures presented in the submitted manuscript. This is because the tap water data represent only consumption of plain tap water and do not include additional consumption of tap water used to prepare other beverages or food. Additionally, these data represent tap water consumption at the time of the survey, after participants had been made aware that their drinking water was contaminated, and they do not represent potentially higher tap water consumption during earlier time periods.

The same interpretations and conclusions regarding the Emmett et al. (2006) tap water consumption data were submitted to NJDEP in comments on a rule proposal several years ago. At that time, Dr. Edward Emmett, the first author, told NJDEP that these interpretations and conclusions regarding the Emmett et al. (2006) tap water consumption data are invalid. Dr. Emmett recently re-confirmed his earlier statements about this to me.

The relevant sections of the comments and responses in the NJDEP rule adoption data, which is posted at https://www.nj.gov/dep/rules/adoptions/adopt_20180116c.pdf, are copied below:

COMMENT (p. 74): "Tables 4 and 5 from Emmett et al. (2006) shows that the median serum PFOA for the '0 drinks per day' group is 301 ng/mL. Therefore, 301 ng/mL is the median serum PFOA from non-drinking water sources from this study cohort."

NJDEP RESPONSE (p. 78-79): "As confirmed by information from Emmett (personal communication, August 2017), data from Emmett et al. (2006) represent only consumption of plain tap water and do not include any other water consumption, including cold or hot drinks made with tap water (for example, powdered drink mixes added to water, iced tea, hot tea or coffee) and do not include consumption of water used to prepare

food (for example, soup, stew, rice, hot cereal). Additionally, these data represent tap water consumption at the time of the survey, when participants were aware that their drinking water was contaminated, and do not represent potentially higher tap water consumption during earlier time periods. Therefore, these data do not provide information on the relevant exposures to PFOA from contaminated drinking water and are not informative in the determination of the serum:drinking water ratio used in the derivation of the ground water quality criterion for PFNA."

In summary, the data on tap water consumption from Emmett et al. (2006) cannot be used to make the conclusions about the contributions of non-drinking water exposures to serum PFOA levels presented in the submitted manuscript, and these tap water consumption data are not informative in determination of the human half-life of PFOA.

Best regards,

Gloria B. Post, Ph.D., DABT Research Scientist

Division of Science and Research New Jersey Department of Environmental Protection Mail Code 428-01, PO Box 420 Trenton, NJ 08625-0420

From: Michael Dourson <dourson@tera.org> **Sent:** Friday, April 16, 2021 3:39 PM To: akihikoh@dranihs.net <akihikoh@dranihs.net>; Janet Anderson <jkanderson@gsi-net.com>; Joseph Annotti <jannotti@truthinscience.org>; Behl, Betsy <Behl.Betsy@epa.gov>; Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>; Sol Bobst <Sol@toxsciadvisors.com>; Alan R Boobis <a.boobis@imperial.ac.uk> Ex. 6 Personal Privacy (PP) Ex. 6 Personal Privacy (PP) Brittain, Ross A <Ross.A.Brittain@wv.gov>; Edward Calabrese <edwardc@schoolph.umass.edu>; Clark, Jill <Jill.Clark@dnr.ga.gov>; Harvey Clewell <HClewell@ramboll.com>; Joseph Cotruvo (AoI) Ex. 6 Personal Privacy (PP) Cox, Kevin kcox@nsf.org; KDavis2@idem.IN.gov <KDavis2@idem.IN.gov>; Deshpande, Satish (MECP) <Satish.Deshpande@ontario.ca>; beth.dittman@dhhs.nc.gov
<beth.dittman@dhhs.nc.gov>; Mike Easter <measter@ensight.net>; Erraguntla, Neeraja <Neeraja_Erraguntla@americanchemistry.com>; Farrer David G <DAVID.G.FARRER@dhsoha.state.or.us>; Ex. 6 Personal Privacy (PP) zanne fitzpatrick <Suzanne.Fitzpatrick@fda.hhs.gov>; Flaga, Christine (DEQ) <FLAGAC@michigan.gov>; Gillay, David <David.Gillay@btlaw.com>; gary.ginsberg@health.ny.gov <gary.ginsberg@health.ny.gov>; Dave Greco <greco@mimfg.org>; Hamade Ali K <ALI.K.HAMADE@dhsoha.state.or.us>; Joseph Haney
Joseph Haney
Joseph Haney
Joseph Haney
Seph-Haney@tceq.texas.gov
Hudson Todd
Todd
Joseph Haney <a href="mailto:seph-Hunson@dhsoha.sta <gadagbui@tera.org>; Jonathan Gledhill <jgledhill@policynavigation.com>; Pórhallur Ingi Halldórsson <tih@hi.is>; Holm, Stewart <Stewart Holm@afandpa.org>; A. Wallace Hayes <awallacehayes@comcast.net>; Jenifer Heath Ex. 6 Personal Privacy (PP) Goeden, Helen (MDH) <helen.goeden@state.mn.us>; Andrea Hinwood <andrea.hinwood@epa.vic.gov.au>; Michael Honeycutt <michael.honeycutt@tceq.texas.gov>; Giffe Johnson Koenigsberg <skoenigsberg@enrxinc.com>; Krapfl, Heidi, DOH <Heidi.Krapfl@state.nm.us>; Sabine Lange <sabine.lange@tceq.texas.gov>; Kristin Licko <klicko@wqa.org>; liethen@mimfg.org liethen@mimfg.org liethen@mimfg.org <Jen.Martin@epa.vic.gov.au>; Ratin Mathur <Ratin.Mathur@crccare.com>; mariko@nihs.go.jp <mariko@nihs.go.jp>; Ravi Naidu (CRCCARE) <Ravi.Naidu@crccare.com>; orme-Zavaleta Jennifer <Orme-Zavaleta.Jennifer@epa.gov>; Greg Paoli <gpaoli@risksciences.com>; Tiago Severo Peixe <tiago@uel.br>; Post, Gloria (DEP) <Gloria.Post@dep.nj.gov>; Potter, Amy <Amy.Potter@dnr.ga.gov>; Brian Priestly <brian.priestly@monash.edu>; pruiz@cdc.gov <pruiz@cdc.gov>; Reh, Chris (ATSDR/OA/OD) <cer2@cdc.gov>; Ries, Divinia (EGLE) <RIESD@michigan.gov>; Risotto, Steve <Steve Risotto@americanchemistry.com>; Mikkonen, Antti Tapani - mikat001 <antti.mikkonen@mymail.unisa.edu.au>; Roe, Christopher M. CRoe@foxrothschild.com; Roberts, Stephen M smroberts@ufl.edu; rroy@mmm.com

<rroy@mmm.com>; Robert Scala { EX. 6 Personal Privacy (PP) >; chester rodriguez { Ex. 6 Personal Privacy (PP) ; Sharma, Raj</rroy@mmm.com>
<raj.sharma@gapac.com>; Schlosser, Paul <schlosser.paul@epa.gov>; John Simon <jsimon@nathaninc.com>; Smith,</jsimon@nathaninc.com></schlosser.paul@epa.gov></raj.sharma@gapac.com>
James Stanley CIV USN NAVMCPUBHLTHCEN PORS (USA) < james.s.smith454.civ@mail.mil>; Rosalind A. Schoof
<rschoof@ramboll.com>; Solchik, Elisabeth <esolchik@idem.in.gov>; Suggs, Shannon M. <ssuggs@nd.gov>; Thayer, Kris</ssuggs@nd.gov></esolchik@idem.in.gov></rschoof@ramboll.com>
<thayer.kris@epa.gov>; Brian Tucker Brittain, Ross A <bri>brian.tucker@epa.ohio.gov>; Dr.Nitin Verma</bri></thayer.kris@epa.gov>
 ; Steve Via ; Steve Via

Subject: [EXTERNAL] PFOA 1/2 Life Project by Alliance for Risk Assessment

Dear Colleagues

Several groups/individuals have joined the collaboration regarding the resolution of the half-life of PFOA, including two NGOs and two universities, along with interest from 1 government and two consulting firms. We also have several nominations for this project's advisory committee; additional nominations are being accepted by through the end of April and will be reviewed by the *ARA* Steering Committee for a decision by the first week of May. We encourage all of you to consider submitting a nominee for this advisory committee and/or endorsing or supporting this collaborative effort.

In the interim, we encourage everyone to share relevant research or other information on the half life of PFOA as it becomes available. In that vein, a recently submitted paper that discusses this topic in part is undergoing journal peer review and can be found at: https://tera.org/about/News/4062021/DoursonandGadagbui2021.pdf.

On behalf of the ARA Steering Committee,

Sincerely,

Michael Dourson

—Alliance for Risk Assessment (ARA), building a risk assessment community

On Apr 6, 2021, at 9:12 AM, Michael Dourson < dourson@tera.org> wrote:

Dear Colleagues

The Alliance for Risk Assessment (*ARA*) (https://tera.org/Alliance%20for%20Risk/index.htm) is endorsing a collaboration among organizations to explore and possibly resolve the conundrum in human 1/2 life for perfluorooctanote (PFOA), which is reflected in differences in safe doses world-wide of 750-fold (Mikkonen et al., 2020*). This collaboration is anticipated to start in April, 2021 with the selection of an advisory committee who will then conduct a series of virtual and possibly face-to-face meetings, with conclusions later this year. Nominations to this advisory committee are welcome. Toxicology Excellence for Risk Assessment has been designated as the nonprofit organization to support this coalition. Because TERA is a 501c3 nonprofit organization, all donations to this effort are tax deductible.

All interested groups are welcome to contact one of us below for additional details.

Sincerely

Alliance Steering Committee

Annette Dietz, Portland State University
Michael Dourson, Toxicology Excellence for Risk Assessment
Michael Honeycutt, Texas Commission on Environmental Quality
Matthew McAtee, U.S. Army Public Health Center
Moiz Mumtaz, Agency for Toxic Substance & Disease Registry
Ralph Perona, Neptune & Company, Inc. [representing tribal interests]

—Alliance for Risk Assessment (ARA), building a risk assessment community

^{*} Mikkonen, Antti T., Jennifer Martin, Michael L. Dourson, Andrea Hinwood, Mark S. Johnson. 2020. Suggestions for Improving the Characterisation of Risk from Exposures to Per and Polyfluorinated Alkyl Substances (PFAS). Environmental Toxicology and Chemistry: 01:1-16. https://doi.org/10.1002/etc.4931.